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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,757	03/30/2001	Satoshi Hanada	7372/70910	3864

22242 7590 09/02/2003

FITCH EVEN TABIN AND FLANNERY  
120 SOUTH LA SALLE STREET  
SUITE 1600  
CHICAGO, IL 60603-3406

EXAMINER
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SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 09/02/2003

#12

Please find below and/or attached an Office communication concerning this application or proceeding.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,757	03/30/2001	Satoshi Hanada	P 279433 559121	3864

909 7590 04/17/2003

PILLSBURY WINTHROP, LLP  
P.O. BOX 10500  
MCLEAN, VA 22102

EXAMINER

SIMONE, CATHERINE A

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10

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Office Action Summary

Application No.	Applicant(s)	
09/820,757	HANADA ET AL.	
Examiner	Art Unit	
Catherine Simone	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubone (5,882,782).

Tsubone discloses a thermoplastic resin sheet having a thermoplastic resin expanded layer of which an expansion ratio is in a range of 3 to 40 times (see col. 3, lines 28-30) except for the specific ranges of the cell wall density ratio as set forth in claims 1, 2, 3 and 4. However, Tsubone teaches a cell size and a number of cells in a 10 mm long straight line in the shorter diameter direction on the surface of the foamed resin sheet (see col. 3, lines 55-63; see col. 6, lines 30-33). Therefore, one of ordinary skill in the art would have determined the cell wall density ratio through routine experimentation depending on the desired end results as shown by Tsubone. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have calculated the optimum or workable ranges depending on the desired end results as shown by Tsubone. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable

Art Unit: 1772

ranges involves only routine skill in the art absence of showing unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Regarding **claim 5**, note the average cell diameter of the expended layer is in the range of  $1\mu\text{m}$  to  $100\mu\text{m}$  (see col. 4, lines 24-26). Regarding **claim 6**, note the expanded layer is formed of polypropylene-based resins (see col. 4, lines 61-67). Regarding **claim 7**, note the thermoplastic sheet has a polyolefin-based resin unexpanded layer (see col. 4, lines 46-64), that is laminated on the expanded layer and has an expansion ratio in the range of 1.0-1.1 (see col. 3, lines 28-31). Regarding **claim 8**, the unexpanded layer is formed of polyolefin-based resins having long chain branch (see col. 2, lines 61-67). Regarding **claim 9**, note a container formed from the thermoplastic resin sheet (see col. 1, lines 15-20). Regarding **claim 10**, note the unexpanded layer has an expansion ratio in the range of 1.0 to 1.1 (see col. 17, lines 43-45). Regarding **claims 11 and 12**, the unexpanded layer is formed of a polyolefin resin (see col. 4, lines 47-64) inherently having a branching degree index  $[A]$ , wherein  $0.20 \leq [A] \leq 0.98$  is satisfied.

### ***Response to Arguments***

3. Applicant's arguments filed February 3, 2003 have been fully considered but they are not persuasive. Applicant states that "Tsubone only teaches the cell size in the short diameter direction measured in a surface plane of a foamed sheet. Tsubone is silent about the relation between the number of cell walls in the thickness direction of an expanded layer and that in a direction perpendicular to the thickness direction. Tsubone is silent also about the significance of this relation. Therefore, those skilled in the art at the time the invention was made can not determine a proper cell wall density ratio." In response to applicant's argument that the

Art Unit: 1772

references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the relation between the number of cell walls in the thickness direction of an expanded layer and that in a direction perpendicular to the thickness direction" and "the significance of this relation") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, one of ordinary skill in the art would have determined the cell wall density ratio through routine experimentation depending on the desired end results as shown by Tsubone. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have determined the optimum or workable ranges depending on the desired end results as shown by Tsubone. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art absence of showing unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

### *Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

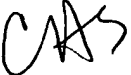
Art Unit: 1772

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

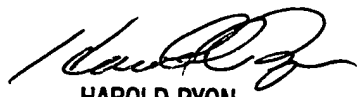
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703) 605-4297. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Catherine Simone  
Examiner  
Art Unit 1772

April 8, 2003

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
